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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,678	12/03/2004	Mitsutoshi Shinkai	450100-05033	6633

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EXAMINER

DANG, HUNG Q

ART UNIT	PAPER NUMBER
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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/516,678	Applicant(s) SHINKAI ET AL.	
	Examiner Hung Q. Dang	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/06/2009 has been entered.

Response to Arguments

Applicant's arguments filed 08/19/2009 have been considered but are not persuasive.

On pages 8-11, Applicant argues the cited references do not disclose the limitation of "recording the third data series onto the optical disk only after all first and second data series are finished being recorded so that the third data series is arranged independently of the periodically arranged first and second data series."

In response, Examiner respectfully disagrees. First of all, at least in [0290], Brook discloses the third data series is clip metadata recorded for each clip and is recorded and arranged independently of the first data series and the second data series as independent files. Further, at least in [0277] and Fig. 21, Brook clearly discloses the recording of the third data series is performed onto the optical disk only after all first and second data series are finished being recorded. Specifically, the first data series is recorded and finished being recorded at step 2104 and the second data series is

recorded and being finished recorded at step 2112 while the third data series is recorded at step 2120.

Therefore, the rejections stand as described above.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

.... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claims 9 and 10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claim 9 and 10 recite “a computer-readable medium” and “a computer-readable storage medium” respectively. However, the recited “computer-readable medium” or “computer-readable storage medium” could be reasonably interpreted as encompassing statutory media such as a “ROM”, “RAM”, “EPROM”, “CD-ROM”, etc, as well as non-statutory subject matter such as a magnetic, optical, electromagnetic, infrared, ... or propagation medium.

A “magnetic, optical, electromagnetic, infrared, ... or propagation medium” is neither a process nor a product, (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of § 101. Rather, a “magnetic, optical, electromagnetic, infrared, ... or propagation medium” is a form of energy, in the absence of any physical structure or tangible material.

The Examiner suggests amending the claim to recite the “computer-readable medium” and “computer-readable storage medium” as “computer-readable non-transitory storage medium” to include tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 rejected under 35 U.S.C. 103(a) as being unpatentable over

Brook et al. (US 2003/0146915 – hereinafter Brook), Tezuka et al. (US Patent 5,206,850 – hereinafter Tezuka), and David (US 2002/0131763 – hereinafter David).

Regarding claim 1, Brook discloses a recording control apparatus for controlling recording of first, second, and third data series onto a storage medium ([0277], [0280], [0282], [0151], and [0290]), the apparatus is characterized by comprising: first data extracting means for extracting video and audio data having a first data amount for each frame from the first data series ([0277]; [0280]; [0282] – *first data amount being the data of one frame*), the first data amount being a data amount in accordance with a data amount required for reproduction of one frame of an image for first reproduction time ([0277]; [0280]; [0282] – *first reproduction time being the reproduction time of the one data frame*); second data extracting means for extracting frame metadata having a second data amount from the second data series, the second data amount being a data amount in accordance with a data amount required for reproduction of the frame metadata for second reproduction time that is different from the first reproduction time ([0280], [0282] – *second reproduction time being the reproduction time of the frame metadata*); first recording-control means for performing recording-control to record data having the first data amount for the first data series and data having the second data amount for the second data series onto the storage medium so that frame meta data for each frame is recorded adjacent the video and audio data recorded for each frame and

the respective data are periodically arranged ([0277], [0280], [0282]; [0135]; [0288]; *Fig. 22; Fig. 28 – Examiner interprets the frame metadata is recorded adjacent the corresponding frame data because they are stored in the same storage medium MOD 512 – in Fig. 22, the data are periodically arranged, i.e. frame metadata is recorded for one frame after another – in Fig. 28, the video and audio data are also periodically arranged*); and second recording-control means for performing recording-control to record the third data series onto the storage medium only after all first and second data series are finished being recorded by the first recording control means ([0277]; [0290] *Fig. 21 – also see “Response to Arguments” above*) so that the third data series is arranged independently of the first data series and the second data series ([0290]), wherein the third data series is separately recorded and wherein the third data series is clip metadata recorded for each clip ([0290]).

However, Brook does not disclose the storage medium to be an optical disk and the data are arranged in a circumferential direction of the optical disk in a form of annular rings, wherein the third data series is recorded at an inner circumference side in a continuous manner.

Tezuka discloses a storage medium to be an optical disk and the data are arranged in a circumferential direction of the optical disk in a form of annular rings and data series is recorded at an inner circumference side of the optical disk (*Fig. 1; column 1, lines 15-42; column 3, lines 29-33; column 6, lines 30-37*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the optical disk disclosed by Tezuka into the recording

control apparatus disclosed by Brook because optical disks such as CD and DVD are very popular recording medium that conveniently provides portability and large capacity for storage.

However, the proposed combination of Brook and Tezuka does not disclose the third data series is recorded in a contiguous manner.

David discloses data series are recorded in a contiguous manner ([0010]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of David into the recording control apparatus disclosed by Brook and Tezuka because, according to David, the taught feature can facilitate the reading, writing, and modifying of the data (*David: [0012]*).

Regarding claim 2, David also discloses the first data amount is a data amount that is an integral multiple of a data amount in a physical unit area of the storage medium and that is close to a data amount required for reproduction for the first reproduction time ([0040]; [0008], [0009], [0046], [0047]); and the second data amount is a data amount that is an integral multiple of a data amount in the physical unit area of the storage medium and that is close to a data amount required for reproduction for the second reproduction time ([0010], [0040]; [0046], [0047]).

Regarding claim 3, David also discloses the physical unit area is a minimum area to/from which data writing/reading is performed or an area in which an ECC block on which ECC processing is performed is recorded ([0008], [0009], [0010]).

Regarding claim 4, David also discloses the first recording-control means causes the data having the first data amount for the first data series and the data having the

second data amount for the second data series to be recorded onto the storage medium so that boundaries of the respective data match boundaries of physical unit areas of the storage medium ([0008], [0009], [0010], [0041], [0042]).

Claim 5 is rejected for the same reason as discussed in claim 3 above.

Regarding claim 6, Brook also discloses the first data series is a data series of video or a data series of audio associated with the video ([0277], [0280]); the second data series is a data series of metadata that requires a real-time characteristic for the data series of video or the data series of audio associated with the video ([0280], [0282]); and the third data series is a data series of metadata that does not require a real-time characteristic for the data series of video or the data series of audio associated with the video ([0151], [0290]).

Regarding claim 7, Brook also discloses for each clip that constitutes the material data in a predetermined area in the first data series, the third data series uses one file containing one of at least an LTC/UMID, GPS data, front-end time code, discontinuous-point time code information, a front-end extended UMID source pack, and a discontinuous-point extended UMID source pack ([0151]).

Claim 8 is rejected for the same reason as discussed in claim 1 above.

Claim 9 is rejected for the same reason as discussed in claim 1 above.

Claim 10 is rejected for the same reason as discussed in claim 1 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG Q DANG/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621